

Notice of Allowability

Application No.

10/757,867

Applicant(s)

KUHARA ET AL.

Examiner

Jennifer Doan

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 06/08/07.
2. ☒ The allowed claim(s) is/are 1-8, 14-20 and 25-41.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____



JENNIFER DOAN
PRIMARY EXAMINER

DETAILED ACTION

Response to Amendment

1. Applicant's amendment, filed on 06/08/07, has been fully considered and entered.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In the abstract, please delete lines 17-21 (start from "The first filter ... the second wavelength") (since The abstract should be within the range of 50 to 150 words).

Reasons for Allowance

3. Claims 1-8, 14-20 and 25-41 are allowed.
4. The following is an examiner's statement of reasons for allowance:

The prior art of record fails to disclose or reasonably suggest all the limitations recited in claims 1 and 26. Specifically, the prior art of record fails to disclose an optical transceiver module for emitting transmitting light along a predetermined axis and

Art Unit: 2874

receiving light having propagated along the predetermined axis, the optical transceiver module comprising a mount substrate disposed so as to intersect with the predetermined axis and having first and second principal surfaces facing each other; a transmitting semiconductor laser mounted on the first principal surface; a receiving photodiode mounted on the predetermined axis and on the second principal surface; a communicating hole provided in a region of the mount substrate intersecting with the predetermined axis where the receiving photodiode is mounted, and letting the first and second principal surfaces communicate with each other; a first filter disposed on the predetermined axis and in a region intersecting with the first principal surface, a lens for condensing the transmitting light and the receiving light, which is located on the predetermined axis so that the first filter is interposed between the receiving photodiode and the lens; and a casing for housing the mount substrate; wherein the casing comprises a first casing portion located on the first principal surface side; and a second casing portion located on the second principal surface side, wherein the mount substrate is housed in the casing and sandwiched between the first casing portion and the second casing portion in combination with the other limitations of claims 1 and 26.

Claims 2-8 and 14 depend from claim 1.

The prior art of record also fails to disclose or reasonably suggest all the limitations recited in claim 15. Specifically, the prior art of record fails to disclose an optical transceiver module for emitting transmitting light along a predetermined axis and receiving light having propagated along the predetermined axis, the optical transceiver

module comprising a first mount substrate disposed so as to intersect with the predetermined axis and having first and second principal surfaces facing each other; a transmitting semiconductor laser mounted on the first principal surface; a communicating hole provided in a region where the predetermined axis intersects with the first mount substrate, and letting the first and second principal surfaces communicate with each other; a second mount substrate disposed so as to intersect with the predetermined axis and having third and fourth principal surfaces facing each other; a receiving photodiode mounted on the predetermined axis and on the third principal surface; a first filter disposed on the predetermined axis and in a region intersecting with the first principal surface; a lens for condensing the transmitting light and the receiving light, the lens being located on the predetermined axis so that the first filter is interposed between the receiving photodiode and the lens; and a casing located on the first principal surface side of the first mount substrate, the casing fixing the lens; wherein the first mount substrate and the second mount substrate are assembled so that the second principal surface faces the third principal surface, the first mount substrate is sandwiched between the casing and the second mount substrate in combination with the other limitations of claim 15.

Claims 16-20 and 25 depend from claim 15.

The prior art of record also fails to disclose or reasonably suggest all the limitations recited in claim 27. Specifically, the prior art of record fails to disclose an optical transceiver module for emitting transmitting light along a predetermined axis and

Art Unit: 2874

receiving light having propagated along the predetermined axis, the optical transceiver module comprising a mount substrate disposed so as to intersect with the predetermined axis and having first and second principal surfaces facing each other; a transmitting semiconductor laser mounted on the first principal surface; a receiving photodiode mounted on the predetermined axis and on the second principal surface; a communicating hole provided in a region of the mount substrate where the receiving photodiode is mounted, and letting the first and second principal surfaces communicate with each other; a first filter disposed on the predetermined axis and in a region intersecting with the first principal surface, and a lens for condensing the transmitting light and the receiving light, which is located on the predetermined axis so that the first filter is interposed between the receiving photodiode and the lens; wherein the mount substrate is covered by a resin body and the lens is buried in the resin body in combination with the other limitations of claim 27.

Claims 28-34 depend from claim 27.

The prior art of record also fails to disclose or reasonably suggest all the limitations recited in claim 35. Specifically, the prior art of record fails to disclose an optical transceiver module for emitting transmitting light along a predetermined axis and receiving light having propagated along the predetermined axis, the optical transceiver module comprising a first mount substrate disposed so as to intersect with the predetermined axis and having first and second principal surfaces facing each other; a transmitting semiconductor laser mounted on the first principal surface; a

communicating hole provided in a region where the predetermined axis intersects with the first mount substrate, and letting the first and second principal surfaces communicate with each other; a second mount substrate disposed so as to intersect with the predetermined axis and having third and fourth principal surfaces facing each other; a receiving photodiode mounted on the predetermined axis and on the third principal surface; a first filter disposed on the predetermined axis and in a region intersecting with the first principal surface; a lens for condensing the transmitting light and the receiving light, the lens being located on the predetermined axis so that the first filter is interposed between the receiving photodiode and the lens; wherein the first mount substrate and the second mount substrate are assembled so that the second principal surface faces the third principal surface, and a resin body is placed on the first principal surface of the first mount substrate and the lens is buried in the resin body in combination with the other limitations of claim 35.

Claims 36-41 depend from claim 35.

The examiner agrees with applicants' arguments on pages 21-23 in the remarks and fully concurs that Kuhara et al do not specifically disclose or suggest an optical transceiver module with all limitations as defined above.

Claims 1-8, 14-20 and 25-41 are therefore allowed.

Any comments considered necessary by applicant must be submitted no later

Art Unit: 2874

than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Doan whose telephone number is (571) 272-2346. The examiner can normally be reached on Monday to Thursday from 6:00am to 3:30pm, second Friday off.

6. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



JENNIFER DOAN
PRIMARY EXAMINER